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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,228	04/08/2004	Johannes Adrianus Antonius Theodorus Dams	081468-0309014	6923

909 7590 01/30/2007  
PILLSBURY WINTHROP SHAW PITTMAN, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER
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FULLER, RODNEY EVAN

ART UNIT	PAPER NUMBER
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2851

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/820,228

Applicant(s)

DAMS ET AL.

Examiner

Rodney E. Fuller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers


- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Rodney Fuller  
Primary Examiner



## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/8/04; 6/2/04; 11/1/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following item(s) must be shown or the feature(s) canceled from the claim(s):

- a. Claim 5 sets forth the limitation "wherein said control system is adapted to control said long and short stroke modules such that said short stroke module reaches a position proximate an extreme of its range of movement in the direction of said scanning velocity when said long stroke module reaches said scanning velocity." However, the time at which the long stroke module reaches the scanning velocity is shown by B', which corresponds to Figure 3C. Figure 3C shows the short stroke module to be at the center of the range of movement and not at a position proximate an extreme range, which is shown in Figure 3A or 3E. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 5 is objected to because of the following item(s):

Claim 5 sets forth the limitation "wherein said control system is adapted to control said long and short stroke modules such that said short stroke module reaches a position proximate an extreme of its range of movement in the direction of said scanning velocity when said long stroke module reaches said scanning velocity." However, the time at which the long stroke module reaches the scanning velocity is shown by B', which corresponds to Figure 3C. Figure 3C shows the short stroke module to be at the center of the range of movement and not at a position proximate an extreme range, which is shown in Figure 3A or 3E.

No new matter should be entered.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Renkens, et al. (US 6,597,433).

Regarding claims 1, 8 and 9, Renkens discloses "a support structure (Fig. 1, ref.# MT) for supporting a patterning device (Fig. 1, ref.# MA), the patterning device serving to pattern a projection beam (Fig. 1, ref.# PB) according to a desired pattern; a substrate table (Fig. 1, ref.# WT) for holding a substrate (Fig. 1, ref.# W); a projection system (Fig. 1, ref.# PL) for projecting the patterned beam onto a target portion of the substrate (Fig. 1, ref.# W); and a positioning system (Fig. 3, ref.# PW) for positioning an object, selected from the group consisting of the support structure and the substrate table, said positioning system having a long stroke module (Fig. 3, ref.# LS) and a short stroke module (Fig. 3, ref.# SS) in series and a control system (column 10, lines 51-59) for controlling the long stroke and short stroke modules to move the positioned object along a desired course at desired speeds; wherein said control system is adapted to control said long and short stroke modules (Fig. 3, ref.# LS, SS) to apply a desired acceleration to said object by controlling said short stroke module to apply said desired acceleration (column 6, lines 50-54) to said object and to control said long stroke module to apply a smaller acceleration (column 6, lines 41-44)." (Note: LS acceleration =  $0.15 \text{ m/s}^2$  and SS acceleration  $4 \text{ m/s}^2$ )

Regarding claim 2, Renkens discloses "wherein said control system (column 10, lines 51-59) is adapted to control said object to move at a substantially constant scanning velocity (column 7, lines 46-49) during a scanned exposure."

### ***Allowable Subject Matter***

4. Claims 3, 4, 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Van Den Biggelaar, et al. US 7,016,019), and Fujita (US 6,809,798) each disclose a support structure for supporting a patterning device, the patterning device serving to pattern a projection beam according to a desired pattern; a substrate table for holding a substrate; a projection system for projecting the patterned beam onto a target portion of the substrate; and a positioning system for positioning an object, selected from the group consisting of the support structure and the substrate table, said positioning system having a long stroke module and a short stroke module in series and a control system for controlling the long stroke and short stroke modules to move the positioned object along a desired course at desired speeds.

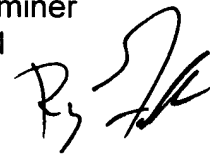
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E. Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rodney E Fuller  
Primary Examiner  
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January 23, 2007